SPENT CANDU AND DUPIC FUEL AS HEAT SOURCE FOR A STIRLING RADIOISOTOPE GENERATOR

(1)(A)Mass produce for economies of scale ground based **Stirling radioisotope generators** with a common architecture to space based **Stirling radioisotope generator** s .

(1)(B)Replace spent fuel water storage with **Stirling radioisotope generator** s. ASRG produce electrical power for decades

(1)(C) waste heat used to heat water

(1)(D) mass produced ground items bring down space based costs

Spent fuel as heat source for a ASRG for planetary missions

(2)(A) Spent fuel ASRG is launched from Kwajalein island for range safety reasons

(2)(B) CANDU fuel assembly weighs 22 Kg , so this would be a large ASRG enabling large planetary science missions

(2)(C) perform trades on power levels and longevity of this heat source, can it provide power over a twenty year mission?

(2)(D) shielding and weight trades need to be done, how does this compare to a small fission reactor for power and weight as well as cost to develop?

PWR ,DUPIC processed fuel for a space based fission reactor

(3)(A) Can DUPIC processed spent nuclear fuel be blended with highly enriched uranium(HEU) for space based fission reactors?

(3)(B) The blended fuel would be in fuel assemblies interior to fresh fuel in order for the fresh fuel to provide radiation shielding for launch pad processing. The top and bottom of the blended fuel assemblies would be fresh fuel as a neutron absorber.

(3)(C) can CANDU perform as a in space reactor as a power sat, with its heavy water?

The role of the civilian nuclear waste trust fund in NASA science missions

(4)(A) the civilian nuclear waste trust fund would pay for the spent fuel by weight to be launched out of the earths biosphere

(4)(B) the waste fund is not responsible for reactor development or deployment or the science mission costs

(4)(C) The costs in (4)(A) above is a subsidy to the NASA science mission cap (budget) to the principle investigator(PI).

The role of the civilian nuclear waste trust fund in a commercial nuclear/solar power sat venture

- the civilian nuclear waste trust fund would pay for the spent fuel by weight to be launched out of the earths biosphere
- the waste fund is not responsible for reactor development or deployment or the nuclear/solar spacecraft bus and power transmitting equipment.
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- the waste fund is owner of the spent waste and is entitled to any positive cash flow if any from its share of the power sat.